

# **ROTATORY WIRELESS USB NETWORK INTERFACE CARD**

## **BACKGROUND OF THE INVENTION**

### **5 FIELD OF THE INVENTION**

The present invention relates to a wireless USB network interface card, particularly to a rotatory wireless USB network interface card whereby the space around USB sockets and connectors can be adjusted according to user's need. Furthermore, another object of the  
10 present invention is to increase efficiency of wireless signal receiving by the rotatory function of the preset invention.

### **DESCRIPTION OF RELATED ART**

Due to rapid development of information technology, a computer  
15 often operates with several peripherals, and possesses a plurality of USB sockets which occupy limited space. When the conventional wireless USB network interface card connect with one of the USB sockets, another USB socket usually can not be used because of space being occupied by wireless network interface card, and it  
20 results in inconvenience or spending money in expansion of USB socket.

There is another conventional wireless USB network interface card possessing swing function whereby it can swing up and down 180° only, but when being used in the occasion of note book computer, that conventional art with swing function also results in  
5 inconvenience.

The note book computer is often placed on the table, and its USB sockets are set side by side together ordinarily. The USB sockets can accommodate another USB connector with the conventional wireless USB network interface card swinging up, but when the USB socket  
10 connects with mobile USB interface hard disc or accessory compact flash disc, owing to incapacity of swinging down of the disc, in contrast to swinging up of the conventional wireless USB network interface card, application of conventional wireless USB network interface card conflicts with application of mobile hard disc or accessory compact  
15 flash disc.

## **SUMMARY OF THE INVENTION**

An object of the present invention is to provide a wireless USB network interface card setup with rotating and swing mechanism whereby rotatory wireless USB network interface card of the present  
5 invention can rotate in a range of  $270^{\circ}$  and swing up and down in a range of  $180^{\circ}$ , with the rotating and swing mechanism between USB connector and wireless USB network interface card itself being pivot, and to provide adjusting capacity of space around USB sockets and connectors and convenience of using USB sockets. Furthermore,  
10 another object of the present invention is to provide more freedom of orientation adjusting for more efficiency receiving of wireless signal.

## **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig.1 illustrates the perspective view of the whole setup of the present  
15 invention

Fig.2 illustrates the top side view and left side view of the present invention setup with its rotating and swing range indicated by arrows

Fig.3 illustrates the perspective view of interior of the present invention

20 Fig.4 illustrates the perspective exploded view of the present invention

Fig.5 illustrates the motion perspective view of rotating and swing of the rotatory wireless USB network interface card engaged with a notebook computer.

## 5 LIST OF REFERENCE NUMERALS

- 10 USB connector fastener
  - 101 fastener's upper half
  - 102 fastener's lower half
- 20 USB connector
- 10 30 rotating and swing mechanism
  - 301 mechanism's upper half
  - 302 mechanism's lower half
- 40 wireless USB network interface card
- 50 setup cover
- 15 501 upper half cover
- 502 lower half cover
- 60 indicator
- 70 setup top cover

## **PREFERRED EMBODIMENTS**

By referring to the following description and accompanying drawings, preferred embodiments will be demonstrated clearly.

Fig.1 illustrates the perspective view of whole setup of the present  
5 invention.

Fig.2 illustrates the top side view and left side view of the setup of the present invention, wherein two black points are pivots of swing and rotating motion separately with rotating range of  $270^{\circ}$  and swing range of  $180^{\circ}$  indicated by arrows.

10 Fig.3 illustrates the perspective view of interior of the present invention, wherein, when wireless network interface card rotating, point A will be limited by point B to avoid over-rotating and damaging of the wires communicating USB connector and wireless network interface card.

Fig.4 illustrates the perspective exploded view of the present invention, wherein there is USB connector fastener10 splitting into fastener's upper half101 and fastener's lower half102. One side of connector fastener10 clamps USB connector20 and the other side clamps rotating and swing mechanism30 which splits into mechanism's upper half301 and mechanism's lower half302. The rotating and swing mechanism30's shape like T , wherein the horizontal swing axle intersects the vertical rotating axle perpendicularly. The both halves of rotating axle is clamped by setup cover50, which splits into upper half cover501 and lower half cover502.

There is circuit board40 of wireless network interface card contained inside the setup cover50, wherein there is indicator60 which lights when wireless signal is transmitted.

There is top cover70 which engages with setup cover50.

Fig.5 illustrates motion perspective view of rotating and swing of the present invention engaged with a note book computer.

While the present invention has been described with reference to the preferred embodiments thereof, it is to be understood that modifications and variations may be easily made without departing from the spirit of this invention which is defined by the appended claims.